

REMARKS

The Office Action mailed September 16, 2003 has been reviewed and carefully considered. Claims 1-10 remain pending in this case, of which claims 1 and 7 are the independent claims. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claims 1-10 were rejected under 35 U.S.C. 102(e) as purportedly anticipated by U.S. Patent No. 6,259,914 to Koster ("Koster").

The "Response to Arguments" section of the Office Action essentially argues that the Koster International Roaming Service Home Location Register (IRS HLR) is the visitor location register (VLR) recited in claim 1, which flies in the face of the disclosure at line 32 of column 5 of Koster which states, "**The IRS HLR 160 functions as a home location register.**"

It is unclear whether the Office Action is trying to suggest that there is no difference between a home location register (HLR) and a visitor location register (VLR).

The HLR, which is a mobile subscriber's database containing information concerning a subscriber's mobile station, registration information, location information and an authentication function, controls a Signal System 7 (SS7) together with the MSC and the VLR, completes an incoming call and performs the transaction with the VLR to update a subscriber's information

By contrast and as explained in Koster, data in the VLR is temporary (col. 2, line 13: “temporarily”; col. 2, line 18: “temporary”). The VLR temporarily stores information about a current location of a subscriber upon switching a service range. The VLR is also used by parts of the MSC other than the HLR to detect information for processing a call to/from a subscriber. Also, the VLR is located differently than the HLR. Generally, the VLR is local (specification, page 13, lines 4-5: “IPC (interprocessor communication) link”), whereas the HLR is typically remotely accessed, e.g., through a signal transfer point (STP), as shown in Koster FIG. 1.

The invention as recited in claim 1 is directed to a “method for managing a foreign mobile subscriber in a visitor location register (VLR) . . . comprising the steps of . . . (b) determining whether roaming service is established for a country of the foreign mobile subscriber by checking if a number of a country code received from the foreign mobile subscriber exists in a country code index table of the VLR when the subscriber in step (a) is determined to be a foreign mobile subscriber.”

Page 4 of the Office Action cites, in rejection of step (b), col. 5, lines 52-57 of Koster. The cited passage discloses activation and registration of a mobile station (col. 4, lines 32-33) using an enhanced (col. 5, lines 32-34) Home Location Register (HLR) (col. 5, line 62). Koster notifies the HLR (col. 5, lines 61-62), but there is no mention of a VLR in the cited passage. In particular, Koster fails to disclose “checking

if a number . . . exists . . . in a country code index table of the VLR” as explicitly required by the language of claim 1.

The present Office Action seems to suggest, firstly, that since Koster FIG. 1 shows an IRS HLR in a visited cellular system, the IRS HLR properly corresponds to the VLR as recited in the invention of claim 1.

However, the term “VLR” is a term of art well-known to those of ordinary skill in the art. Moreover, as discussed above, Koster specifically states that the IRS HLR functions as an HLR which is different from a VLR.

Secondly, the Office Action suggests that “the Applicant appears to be describing a component in his system that functions identically to a component in the prior art.”

Page 4 of the Office Action cites to lines 15-67 of column 5 of Koster in rejecting claim 1, but many claim limitations in addition to the VLR are not disclosed nor suggested in the cited passage or anywhere else in Koster. These undisclosed claim limitations include, but are not limited to, the country code index table, the service provider index table, and, for example, “providing service to the foreign mobile subscriber while managing the corresponding number in the order of the country code index table number, the service provider index table number and a mobile station identification number (MIN) after determining that the service provider of the foreign

mobile subscriber is a roaming service provider identified in step (c).”

The Office Action seems to avoid identifying any of these limitations specifically in the cited “lines 15-67 of column 5” passage in Koster, and attempts to dismiss its own shortcomings in this regard by pronouncing on page 2 of the previous Office Action that the methods recited in claim 1 and in Koster are “nearly identical.”

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) MPEP 2131.

As a further example of the failings of the purported anticipation rejection of claim 1, page 4 of the Office Action cites column 5, lines 52-67 of Koster as disclosing step (b) of claim 1. Even though the cited passage discloses the process of activating and registering a foreign mobile station 100 within a foreign communication system when an international roamer visits a foreign country as described in Koster FIG. 3, the passage fails to disclose or suggest “checking if a number of a country code received from the foreign mobile subscriber exists in a country code index table of the VLR” as explicitly required by the language of claim 1.

Koster fails to disclose the checking of the VLR and numerous other limitations of claim 1 as mentioned above, and accordingly fails to anticipate claim 1.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 7 recites “updating the country code index table data and the service provider index table data in the VLR, when the operator’s class is an accessible class.”

Page 5 of the Office Action cites col. 4, lines 48-65 of Koster in rejecting the above language of claim 7.

The cited passage mentions an enhanced Home Location Register (col. 4, line 58), but nothing about the Visitor Location Register (VLR). In particular, Koster fails to disclose the updating of the VLR specified in claim 7 and fails to anticipate claim 7 for at least this reason.

To further analyze this anticipation rejection, the applicant wishes to discuss what the cited passage says or suggests and what the passage does not say or suggest. FIG. 1 of the citation is a block diagram of an international roaming network architecture for which a Foreign Mobile Switching Center (FMSC) 180 and a Foreign Home Location Register (FHLR) 185 are located in a service zone 165. The FHLR is a subscriber database containing each customer’s Mobile Identification Number (MIN) and Electronic Serial Number (ESN), and the FMSC 180 uses this information stored in the FHLR 185.

The citation does not disclose or suggest a method for managing data of a visitor location register (VLR) including a country code index table and a service provider index table for a roaming service of a foreign mobile subscriber in a mobile

switching center (MSC) as disclosed in the present invention as recited in claim 7. Nor does the citation disclose or suggest “updating the country code index table data and the service provider index table data.” It is unclear how it properly could be alleged that the applied reference discloses the limitations of claim 7.

Reconsideration and withdrawal of the rejection is respectfully requested.

Each of the other claims depends from one of the base claims and is likewise deemed to be patentable over the applied reference for at least the same reason, although each warrants examination based on its own additional merits. Claim 3, for example, recites “wherein the country code index table comprises a table in which a prefix is comprised of the MMC and the MNC of the IMSI, and the table has an index value corresponding to the roaming service country code.” Where in Koster is the “index value” of claim 3 disclosed? Nowhere. The claims are full of similar examples that demonstrate the futility of the anticipation rejection. Reconsideration and withdrawal of the rejection is respectfully requested.

In view of the foregoing amendments and remarks, it is believed that this application is now in condition for allowance. The Examiner is invited to contact the undersigned in the event of any perceived outstanding issues so that passage of the case to issue can be effected without the need for a further Office Action.

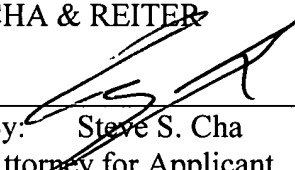
Amendment
Serial No. 09/664,507

Docket No. 5000-1-145.

In the event that any additional fee is required to continue the prosecution of this Application as requested, please charge such fee to Deposit Account No. 502-470.

Respectfully submitted,

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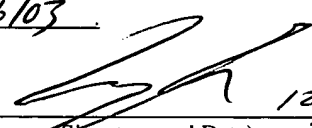
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